

MILK PRODUCTION

June 11, 1964

Special in this issue
ROUGHAGE FED TO MILK COWS,
1963-64 WINTER FEEDING SEASON, Page 7

SUMMARY

United States milk output in May is estimated at 12,330 million pounds, slightly higher than the 12,315 million pounds produced a year earlier and nearly equal to the 1958-62 average for the month. On a daily basis, the seasonal increase in production from April to May was 5 percent compared with 6 percent in 1963. May milk production was equivalent to 2.07 pounds per person daily compared with 2.10 pounds in May 1963. Milk output averaged 767 pounds per cow in May, 3 percent above a year earlier and 11 percent above the 5-year average for the month.

On June 1, condition of the Nation's dairy pastures was reported at 84 percent of normal for the date. This is 5 points higher than the unusually poor condition a year earlier, but 2 points below the 1958-62 average for the date. Pasture growth was slowed by light rainfall during May in most of the country but June 1 condition was still better than a year earlier in all regions except the West. Reporters fed an average of 7.7 pounds of grain and other concentrates per milk cow on June 1, 7 percent more than on that date last year.

Table 1.-Milk per cow and milk production by months, United States, 1964, with comparisons

Month	Milk per cow			Milk production			
	Average 1958-62	1963	1964	Average 1958-62	1963	1964	Change from 1963
	Pounds	Pounds	Pounds	Million pounds	Million pounds	Million pounds	Percent
January.....	549	599	620	9,867	10,065	10,066	0
February.....	526	565	608	9,421	9,470	9,842	+3.9
March.....	603	651	681	10,778	10,879	11,007	+1.2
April.....	622	672	704	11,088	11,196	11,346	+1.3
May.....	694	742	767	12,331	12,315	12,330	+0.1
June.....	671	715		11,901	11,841		
July.....	617	658		10,913	10,861		
August.....	573	615		10,114	10,130		
September....	536	582		9,450	9,558		
October.....	540	584		9,489	9,557		
November.....	516	564		9,054	9,205		
December.....	547	596		9,580	9,706		
Annual.....	6,995	7,545		123,986	124,783		

Table 2.-Monthly milk per cow and milk production, May 1964, with comparisons

State	Monthly milk per cow ^{1/}			Milk production			
	May av. ^{2/} 1958-62	May 1963	May 1964	May av. ^{2/} 1958-62	May 1963	May 1964	Change from 1963
	Pounds	Pounds	Pounds	Million pounds	Million pounds	Million pounds	Percent
Maine.....	-	790	820	-	71	72	+ 1
New Hampshire.....	-	775	810	-	39	39	0
Vermont.....	-	785	800	-	199	199	0
Massachusetts.....	-	840	860	-	74	73	- 1
Rhode Island.....	-	845	850	-	10.2	10.0	- 2
Connecticut.....	-	840	850	-	64	64	0
New York.....	826	880	913	1,036	1,074	1,084	+ 1
New Jersey.....	861	944	940	112	110	107	- 3
Pennsylvania.....	773	850	860	683	724	707	- 2
Ohio.....	753	838	860	517	527	520	- 1
Indiana.....	737	810	830	323	323	321	- 1
Illinois.....	749	820	860	440	416	415	0
Michigan.....	760	830	850	494	522	526	+ 1
Wisconsin.....	850	880	900	1,836	1,874	1,896	+ 1
Minnesota.....	830	855	910	1,065	1,082	1,140	+ 5
Iowa.....	708	750	795	612	596	603	+ 1
Missouri.....	580	600	610	388	368	354	- 4
North Dakota.....	665	695	710	188	179	174	- 3
South Dakota.....	587	580	600	149	133	134	+ 1
Nebraska.....	631	635	655	209	182	179	- 2
Kansas.....	572	585	600	196	179	176	- 2
Delaware.....	-	760	770	-	18.2	17.7	- 3
Maryland.....	670	700	710	146	149	148	- 1
Virginia.....	565	580	610	190	180	183	+ 2
West Virginia.....	484	484	495	64	54	53	- 2
North Carolina.....	530	545	575	146	137	141	+ 3
South Carolina.....	427	460	490	48	46	46	0
Georgia.....	415	440	450	92	85	83	- 2
Florida.....	567	655	665	107	115	118	+ 3
Kentucky.....	508	560	580	259	269	270	0
Tennessee.....	461	480	480	231	230	220	- 4
Alabama.....	377	396	410	94	86	84	- 2
Mississippi.....	341	360	370	127	111	105	- 5
Arkansas.....	425	455	480	96	88	83	- 6
Louisiana.....	-	360	400	-	79	84	+ 6
Oklahoma.....	545	590	590	143	127	119	- 6
Texas.....	457	510	548	269	267	272	+ 2
Montana.....	602	630	615	48	44	41	- 7
Idaho.....	794	819	795	160	157	151	- 4
Wyoming.....	597	626	620	18.3	16.4	15.8	- 4
Colorado.....	639	685	710	80	77	74	- 4
New Mexico.....	-	640	635	-	25	26	+ 4
Arizona.....	-	880	920	-	45	47	+ 4
Utah.....	742	780	780	70	70	68	- 3
Nevada.....	659	725	785	9.9	10.9	11.0	+ 1
Washington.....	859	894	950	202	200	204	+ 2
Oregon.....	776	780	800	125	114	111	- 3
California.....	893	945	959	732	756	748	- 1
Alaska.....	-	730	730	-	1.9	1.9	0
Hawaii.....	-	770	850	-	10.8	11.5	+ 6
United States.....	694	742	767	12,331	12,315	12,330	+ 0.1

^{1/} Monthly rate based on all milk cows on farms (in milk or dry).
^{2/} Five-year averages not available for States where not shown.

Milk output slightly above May a year ago

United States milk output in May is estimated at 12,330 million pounds. This is slightly higher than the 12,315 million pounds produced in May last year and nearly equal to the 1958-62 average of 12,331 million pounds. On a daily basis, the seasonal increase in production from April to May was 5 percent compared with 6 percent last year and the 5-year average increase of 8 percent. In recent years, May has been the peak month in milk output. May milk production was equivalent to 2.07 pounds per person daily compared with 2.10 pounds available in May 1963.

May production was at a record high level in 9 States; however, record low production for the month occurred in 16 States and previous record lows were equaled in 3 States. In addition to the many record lows in May production, there were 6 other States where May output was below both last year and the 5-year average.

May milk production per cow up 3 percent

United States milk production per cow in May averaged 767 pounds -- 3 percent above a year earlier and 11 percent above average. Although each monthly output per cow in 1964 has held above a year earlier, the May increase is less than the 5 percent gain in March and in April. On a daily average basis, the May rate was 5 percent above April compared with an increase of 7 percent a year earlier. Milk per cow was at a record level in 41 States during May. California's May average production per cow at 959 pounds exceeds all States. Washington's 950 pounds ranked second followed by 940 pounds in New Jersey, 920 pounds in Arizona, and 913 in New York. Milk cows in Minnesota and Wisconsin, also were producing at or above the 900 pound level during May.

Grain feeding rate 7 percent above June 1 last year

On June 1, reporters fed an average of 7.7 pounds of grain and other concentrates per milk cow, 7 percent more than a year earlier. The 1958-62 average feeding rate for June 1, is 6.2 pounds per cow. June 1 feeding rates were higher than a year earlier in 31 States, with sharp increases in several Western States where pasture feed is short.

May milk-feed price ratio unchanged from last year

The May milk-feed price ratio at 1.26 was unchanged from last year. May was the first month since November 1963 that the ratio was not above a year earlier. The May ratio declined seasonally from April by 3 percent compared with 2 percent last year and the average decline of 4 percent. The drop in the ratio from April was primarily a result of seasonal decline in milk prices. The 5-year average milk-feed price ratio for May is 1.29. In cream selling areas, the May milkfat-feed price ratio at 23.0 compares with 23.2 a month earlier and 23.1 a year earlier. The 5-year average milkfat-feed price ratio for May is 24.4.

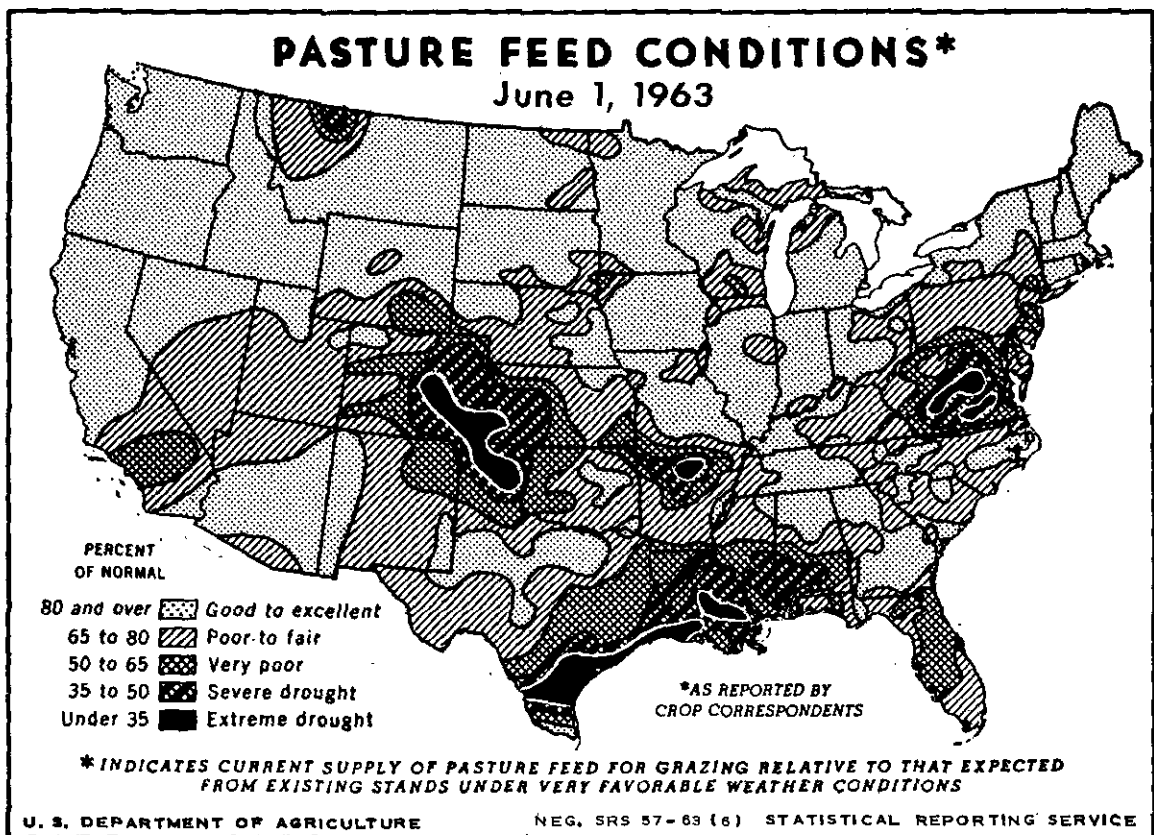
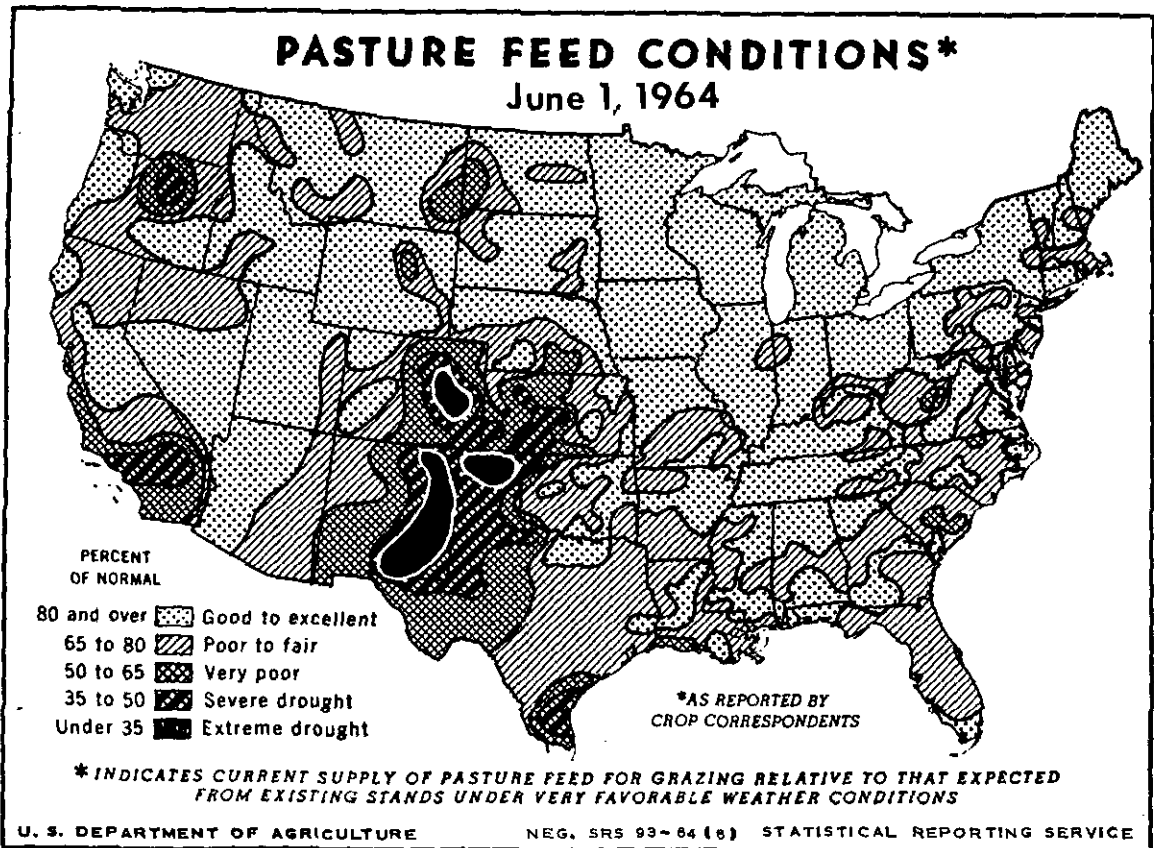
Pasture growth slowed by light rainfall in May

On June 1, condition of the Nation's dairy pastures was reported at 84 percent of normal for the date. This is 5 points higher than the unusually poor condition a year earlier, but 2 points below the 1958-62 average for June 1. Dairy pasture condition declined 1 point from May 1, contrary to an average seasonal improvement of 1 point during May. In spite of the slow growth during May, June 1 condition of dairy pastures was better than a year earlier in all regions except the West.

May rainfall was below normal in most of the country and less than one-half of normal in several large areas. Above-normal rainfall in May was limited to a wide band from Nevada north-eastward through Montana, the western parts of Kansas and Oklahoma, most of Wisconsin, and several smaller areas. May temperatures averaged above normal in most of the Nation east of the Rockies but the West continued cooler than usual.

In the East, May rainfall was less than one-half of normal from southern New England southward through North Carolina. Reported pasture condition dropped 6 points or more during May in each of the Atlantic Coast States from Massachusetts to Florida and was below the 1958-62 average for June 1 in each of these States except Georgia. However, in New Jersey, Delaware, Maryland, and Virginia, June 1 pasture feed was still much better than a year earlier, when severe drought started early in the summer.

May rainfall was also less than one-half of normal from Ohio westward through Illinois. However, heavy April rainfall in this area had built up a reserve of soil moisture which kept pastures growing well through most of May. Pasture feed was unusually good on June 1 from



Michigan westward through the Dakotas. In Nebraska and Kansas, pastures made slow growth during May. Reported June 1 condition in Kansas was 20 points below the 5-year average for the date but State-wide rains at the end of May should revive pastures.

Reported pasture condition declined during May in each of the South Central States except Oklahoma. May rainfall was light in much of this region but heavy April rains provided soil moisture to maintain pasture growth well into May. On June 1, pasture feed was still much better than a year earlier in Mississippi, Arkansas, and Louisiana. Dry areas of northern Texas and western Oklahoma received good rains at the end of May which should improve grazing in early June.

In the West, severe drought persisted through May in eastern areas of Colorado and New Mexico. On June 1, New Mexico pasture condition was reported at 45 percent of normal, the lowest for the date since 1950. Grazing prospects in the drought area of eastern Colorado were improved by substantial rains at the end of May. Below-normal temperatures and light rainfall through May delayed pasture growth in the Northwest, and supplemental feeding was required later than usual. In California, dryland pastures at lower elevations dried up rapidly during May.

Table 3.-Dairy pasture feed condition, as percentage of normal, June 1, 1964, with comparisons ^{1/}

State and division	June 1, av. 1958-62	June 1, 1963	June 1, 1964	State and division	June 1, av. 1958-62	June 1, 1963	June 1, 1964
	Percent	Percent	Percent		Percent	Percent	Percent
Me.	89	90	92	N. C.	85	76	77
N. H.	89	90	87	S. C.	79	77	72
Vt.	92	89	93	Ga.	78	82	79
Mass.	91	89	75	Fla.	75	64	69
R. I.	92	94	70	S. Atl. ..	84	66	78
Conn.	89	81	85	Ky.	89	78	83
N. Y.	87	82	88	Tenn.	83	79	85
N. J.	83	66	78	Ala.	78	73	82
Pa.	87	69	85	Miss.	80	59	80
N. Atl.	88	80	86	Ark.	82	61	79
Ohio	88	81	89	La.	76	44	75
Ind.	91	87	86	Okla.	84	65	72
Ill.	92	84	86	Tex.	76	63	63
Mich.	87	86	94	S. Cent. .	81	67	76
Wis.	87	82	96	Mont.	77	88	82
E. N. Cent. .	88	83	92	Idaho.....	88	95	83
Minn.	86	86	92	Wyo.	83	82	83
Iowa.....	92	86	93	Colo.	85	48	55
Mo.	87	80	81	N. Mex.	72	62	45
N. Dak.	71	86	81	Ariz.	84	85	83
S. Dak.	81	82	86	Utah.....	81	83	84
Nebr.	89	76	79	Nev.	77	90	81
Kans.	86	62	66	Wash.	88	88	77
W. N. Cent. .	86	81	85	Oreg.	91	93	80
Del.	83	63	77	Calif.	80	90	72
Md.	86	60	80	West.	83	85	74
Va.	90	46	83	U. S.	86	79	84
W. Va.	84	61	78				

^{1/} Indicates current supply of feed for grazing relative to that expected from existing stands under very favorable weather conditions. U. S. averages differ from those published in Crop Production in that States are combined with dairy rather than all livestock weights.

Table 4.-Grain and other concentrates fed daily per milk cow in herds kept by reporters, June 1, 1964, with comparisons

State	June 1, av. 1958-62	June 1, 1963	June 1, 1964	State	June 1, av. 1958-62	June 1, 1963	June 1, 1964
	<u>Lb.</u>	<u>Lb.</u>	<u>Lb.</u>		<u>Lb.</u>	<u>Lb.</u>	<u>Lb.</u>
Maine.....	7.1	8.5	8.2	West Virginia.....	3.9	4.6	4.8
New Hampshire....	6.2	8.1	7.9	North Carolina....	6.5	7.8	8.1
Vermont.....	5.9	7.8	7.3	South Carolina....	5.4	6.1	5.5
Massachusetts....	7.3	8.5	9.7	Georgia.....	5.8	7.2	8.9
Rhode Island.....	8.0	9.5	10.0	Florida.....	4.9	5.0	5.0
Connecticut.....	7.5	8.7	9.1	Kentucky.....	4.8	6.1	6.8
New York.....	6.6	7.9	8.1	Tennessee.....	5.0	5.6	5.7
New Jersey.....	7.6	9.4	9.2	Alabama.....	5.0	6.7	7.0
Pennsylvania.....	8.3	9.9	10.9	Mississippi.....	3.7	3.9	5.0
Ohio.....	6.8	8.1	9.0	Arkansas.....	4.5	5.4	6.4
Indiana.....	7.0	7.8	8.5	Louisiana.....	4.2	4.8	6.6
Illinois.....	6.2	7.7	8.0	Oklahoma.....	6.1	7.4	8.0
Michigan.....	7.0	9.4	9.3	Texas.....	4.6	4.7	4.6
Wisconsin.....	6.5	7.1	6.7	Montana.....	4.8	5.1	5.4
Minnesota.....	6.9	7.7	8.4	Idaho.....	5.1	5.5	6.5
Iowa.....	6.7	7.6	7.7	Wyoming.....	4.3	4.4	4.6
Missouri.....	5.8	6.9	7.8	Colorado.....	6.0	6.5	8.2
North Dakota.....	6.2	7.5	7.5	New Mexico.....	5.4	7.0	8.5
South Dakota.....	5.1	6.0	6.0	Arizona.....	5.9	6.5	8.5
Nebraska.....	5.8	6.9	6.9	Utah.....	5.8	7.1	6.8
Kansas.....	6.2	7.8	6.7	Nevada.....	4.7	7.0	9.0
Delaware.....	7.6	10.0	9.4	Washington.....	5.6	6.4	7.5
Maryland.....	7.9	8.4	10.0	Oregon.....	5.3	5.5	5.5
Virginia.....	6.4	8.4	7.7	California.....	6.3	8.0	8.5
				United States.....	6.2	7.2	7.7

Table 5.-Average milk price received by farmers and value of concentrate ration fed to milk cows, by regions, May 1964, with comparisons

Region	Milk price per 100 pounds				Ration value per 100 pounds			
	May av. 1958-62	May 1963	April 1964	May 1964	May av. 1958-62	May 1963	April 1964	May 1964
	<u>Dol.</u>	<u>Dol.</u>	<u>Dol.</u>	<u>Dol.</u>	<u>Dol.</u>	<u>Dol.</u>	<u>Dol.</u>	<u>Dol.</u>
N. Atl.	4.15	4.04	4.26	4.09	3.56	3.59	3.58	3.57
E. N. Cent. ..	3.43	3.43	3.57	3.49	2.69	2.74	2.78	2.79
W. N. Cent. ..	3.21	3.23	3.34	3.28	2.30	2.43	2.46	2.47
S. Atl.	5.10	5.09	5.27	5.15	3.33	3.42	3.44	3.45
S. Cent.	4.20	4.22	4.40	4.23	3.06	3.13	3.16	3.14
West.	4.08	4.11	4.23	4.15	3.13	3.16	3.20	3.22
U. S.								
Milk areas....	3.80	3.78	3.94	3.83	2.94	3.01	3.03	3.03
Cream areas...	-	-	-	-	2.44	2.53	2.53	2.54
Milk and cream areas.....	-	-	-	-	2.90	2.99	3.01	3.02

Table 6.-Milk-feed and milkfat-feed price ratios, by regions, May 1964, with comparisons

Region	Milk-feed ratio ^{1/}				Milkfat-feed ratio ^{2/}			
	May av. 1958-62	May 1963	April 1964	May 1964	May av. 1958-62	May 1963	April 1964	May 1964
N. Atl.	1.17	1.13	1.19	1.15	-	-	-	-
E. N. Cent. ..	1.28	1.25	1.28	1.25	20.4	20.3	19.8	19.8
W. N. Cent. ..	1.40	1.33	1.36	1.33	26.6	24.4	24.2	24.0
S. Atl.	1.53	1.49	1.53	1.49	-	-	-	-
S. Cent.	1.37	1.35	1.39	1.35	16.5	16.2	16.4	16.3
West.	1.30	1.30	1.32	1.29	18.7	18.4	18.1	17.9
U. S.	1.29	1.26	1.30	1.26	24.4	23.1	23.2	23.0

^{1/} Pounds of concentrate ration equal in value to 1 pound of whole milk sold by farmers.

^{2/} Pounds of concentrate ration equal in value to 1 pound of milkfat in cream sold by farmers.

ROUGHAGE FED TO MILK COWS, 1963-64 WINTER FEEDING SEASON

Dairymen fed 3.5 tons (hay equivalent) of roughage per milk cow during the winter feeding season ending in May 1964, according to the Crop Reporting Board. The 1964 roughage intake compares with 3.4 tons per cow in the previous season.

Hay consumption rate unchanged

Milk cows were fed 2.4 tons of hay per head during the 1964 winter feeding season, unchanged from a year earlier. Hay was fed heavily in the Western Region; the 3.4 tons fed in the 1964 season compares with 3.2 tons a year earlier. Second in rate of hay fed per cow was the West North Central Region with 2.7 tons, followed by the North Atlantic with 2.6 tons and East North Central with 2.5 tons. Four States -- Idaho, Colorado, Utah, and Nevada--each had an average hay feeding rate of 4 or more tons per milk cow; North Dakota, Wyoming, and Nevada were the only States feeding at the 4-ton level a year earlier.

Alfalfa or mixed alfalfa hay is the predominant hay fed to milk cows. In the 1964 feeding season, 72 percent of the hay fed to milk cows was alfalfa or mixed alfalfa hay compared with 70 percent fed in the 1963 season. Clover or mixed clover hay accounted for 15 percent of the hay fed, compared with 18 percent a year earlier. Lespedeza hay made up 2 percent; Coastal Bermuda 1 percent and other hay 10 percent of the hay fed in the 1964 season. Alfalfa hay not only was the predominant kind of hay fed in all regions, but also accounted for a higher percent of the total than a year earlier in each region except the South Central. Clover or mixed clover hay was an important roughage in the North Atlantic Region -- amounting to about one-third of hay fed. Lespedeza hay represented 16 percent of the hay fed to milk cows in the South Central and 5 percent in the South Atlantic Region. Coastal Bermuda hay accounted for more than 40 percent of the hay fed to milk cows in South Carolina and Georgia and a large portion in Alabama and Louisiana.

Silage feeding rates increase sharply

Silage feeding rates increased sharply during the 1964 winter feeding season because of lower 1963 hay production in many States, particularly in drought areas. The 1964 silage feeding rate of 3.1 tons per cow compared with 2.8 tons in 1963. Silage feeding rates increased in all regions except the South Central and Western in the 1964 feeding season. In the South Central Region, the average silage feeding rate was 1.3 tons, unchanged from a year earlier. The Western Region average was 1.9 tons of silage fed per cow in 1964, compared with 2.0 tons in 1963. Silage was fed more heavily in the East North Central Region than in any other. The 1964 rate was 4.2 tons in this region compared with 3.6 tons in 1963. The South Atlantic Region ranked second in silage feeding rate at 3.6 tons compared with 3.4 tons in 1963. Delaware-Maryland, and Virginia exceeded all other States in silage feeding rates, with more than 5 tons per cow. However, there were 9 States that had a rate of 4 or more tons per cow.

Corn silage use as a roughage fed to milk cows increased in the 1964 winter season, but grass and sorghum silage declined. Corn silage represented 83 percent of the silage fed to milk cows in 1964 compared with 80 percent in 1963. Grass silage accounted for 9 percent and sorghum 5 percent of the silage fed in the 1964 winter season. Grass silage still represents a large portion of the silage fed in the North Atlantic and Western Regions; sorghum silage is an important roughage in West North Central and South Central Regions.

Value of hay fed to milk cows 6 percent above 1963

Value of hay fed to milk cows on February 1, 1964 averaged \$27.08 per ton--6 percent above the \$25.44 reported on February 1, 1963. Although the reported value per ton of hay was lower than a year earlier in the North Atlantic Region, it was higher than on the corresponding date a year earlier in other regions. By States, hay values on February 1, 1964 ranged from an average of \$15.00 in South Dakota to \$46.50 in Delaware-Maryland. Baled hay was being fed on February 1, 1964 by 88 percent of the dairy reporters, chopped hay by 4 percent, and loose hay by 8 percent. These proportions were about the same as a year ago.

Table 7.-Hay and silage fed per milk cow in herds kept by dairy reporters, winter feeding period ending in May, by States, 1963 and 1964 1/

State and division	Hay		Silage		Hay equivalent of all roughage 2/	
	1963	1964	1963	1964	1963	1964
	Tons	Tons	Tons	Tons	Tons	Tons
Me., N. H., Vt.	3.0	2.9	2.0	1.9	3.7	3.5
Mass., R. I., Conn. ..	2.3	2.3	3.3	3.2	3.0	3.4
N. Y.	2.8	2.8	3.4	3.6	3.9	4.0
N. J.	2.0	2.4	4.7	4.6	3.6	3.9
Pa.	2.2	2.3	3.9	4.1	3.5	3.6
N. Atl.	2.6	2.6	3.4	3.5	3.7	3.8
Ohio.....	2.2	2.3	3.0	3.6	3.2	3.5
Ind.	2.2	2.1	3.8	4.2	3.4	3.5
Ill.	2.5	2.4	3.7	4.0	3.7	3.7
Mich.	2.9	2.6	3.6	4.5	4.1	4.1
Wis.	2.3	2.6	3.8	4.2	3.6	4.0
E. N. Cent.	2.4	2.5	3.6	4.2	3.6	3.9
Minn.	2.9	2.8	3.4	3.6	4.0	4.0
Iowa.	2.9	2.9	2.1	2.7	3.6	3.8
Mo.	2.4	2.5	3.1	3.6	3.4	3.7
N. Dak.	4.2	3.4	3.0	2.9	5.2	4.3
S. Dak.	2.5	2.3	2.9	3.3	3.5	3.4
Nebr.	2.5	2.6	1.1	2.1	2.8	3.3
Kans.	2.0	2.0	3.4	4.3	3.1	3.4
W. N. Cent.	2.8	2.7	2.8	3.3	3.7	3.8
Del., Md.....	2.1	1.8	4.4	5.4	3.6	3.6
Va.	2.1	1.8	3.8	5.2	3.3	3.5
W. Va.	2.3	1.9	2.8	4.0	3.2	3.3
N. C.	1.3	1.2	5.5	3.0	3.1	2.2
S. C.	1.1	1.0	3.4	4.1	2.2	2.3
Ga.	1.4	1.5	2.5	3.0	2.2	2.5
Fla.	a/	a/	a/	a/	a/	a/
S. Atl.	1.6	1.5	3.4	3.6	2.7	2.7
Ky.	2.1	2.2	1.3	1.7	2.5	2.7
Tenn.	1.6	1.6	1.8	1.7	2.2	2.2
Ala.	1.2	1.2	1.5	1.5	1.7	1.7
Miss.	1.0	1.0	.7	a/	1.3	1.2
Ark.	1.7	1.8	.7	1.2	1.9	2.2
La.	1.3	1.2	1.1	a/	1.7	1.5
Okla.	2.1	2.4	2.1	1.9	2.8	3.0
Tex.	1.6	1.6	1.1	.9	2.0	1.9
S. Cent.	1.6	1.7	1.3	1.3	2.0	2.1
Mont.	3.8	3.6	1.0	.8	4.1	3.8
Idaho.....	3.8	4.2	2.6	2.4	4.7	5.0
Wyo.	4.0	3.4	2.2	a/	4.7	4.0
Colo.	2.8	4.0	2.9	3.1	3.7	5.0
N. Mex.	3.0	2.8	1.3	2.0	3.4	3.5
Ariz.	3.2	2.9	2.0	2.0	3.9	3.6
Utah.....	3.9	4.5	2.6	3.3	4.8	5.6
Nev.	4.8	4.3	a/	a/	4.8	4.5
Wash.	2.6	2.7	3.4	2.6	3.7	3.6
Oreg.	2.5	2.4	2.9	3.6	3.4	3.6
Calif.	3.4	3.2	1.2	1.2	3.8	3.6
West.	3.2	3.4	2.0	1.9	3.9	4.0
U. S.	2.4	2.4	2.8	3.1	3.4	3.5

1/ Based on tonnage fed during the October-May winter feeding period as reported on May 1, and number of milk cows in herds on that date. 2/ In computing hay equivalent, 3 tons of silage are considered equal to 1 ton of hay. a/ Number of reports not sufficient to establish a stable average.

Table 8.-Hay: Percentage, by kinds, fed to milk cows in herds kept by dairy reporters, winter feeding period ending in May, by States, 1963 and 1964 ^{1/}

State and division	Alfalfa or mixed alfalfa		Clover or mixed clover		Lespedeza		Coastal bermuda		Other	
	1963	1964	1963	1964	1963	1964	1963	1964	1963	1964
	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
Me., N. H., Vt.	13	22	68	63	-	-	-	-	19	15
Mass., R. I., Conn.	31	30	58	54	-	-	-	-	11	16
N. Y.	52	59	42	23	-	-	-	-	6	18
N. J.	66	67	24	22	-	-	-	-	10	11
Pa.	60	63	28	26	-	-	-	-	12	11
N. Atl.	47	53	43	32	-	-	-	-	10	15
Ohio.....	69	72	24	24	-	-	-	-	7	4
Ind.	78	72	17	24	-	-	-	-	5	4
Ill.	86	87	13	11	-	-	-	-	1	2
Mich.	84	87	15	10	-	-	-	-	1	3
Wis.	85	87	14	12	-	-	-	-	1	1
E. N. Cent.	82	84	16	14	-	-	-	-	2	2
Minn.	87	89	8	8	-	-	-	-	5	3
Iowa.....	84	85	14	13	-	-	-	-	2	2
Mo.	59	62	22	19	7	5	-	-	12	14
N. Dak.	54	59	3	2	-	-	-	-	43	39
S. Dak.	90	84	1	3	-	-	-	-	9	13
Nebr.	90	83	1	1	-	-	-	-	9	16
Kans.	82	82	1	2	-	-	-	-	17	16
W. N. Cent.	79	80	10	9	1	1	-	-	10	10
Del., Md.	62	60	34	36	2	2	-	-	2	2
Va.	59	79	32	13	5	2	-	-	4	6
W. Va.	66	62	20	31	1	2	-	-	13	5
N. C.	35	33	22	21	21	18	-	-	22	28
S. C.	3	3	3	2	20	13	36	46	38	36
Ga.	13	14	8	6	7	8	32	45	40	27
Fla.	a/	a/	a/	a/	a/	a/	a/	a/	a/	a/
S. Atl.	45	47	24	19	6	5	7	12	18	17
Ky.	54	52	19	20	19	19	-	-	8	9
Tenn.	35	30	16	20	29	29	-	-	20	21
Ala.	6	9	6	15	14	10	13	18	61	48
Miss.	6	7	16	26	30	35	3	1	45	31
Ark.	19	26	19	13	29	23	2	2	31	36
La.	9	3	5	10	6	2	27	33	53	52
Okla.	65	64	-	1	2	3	1	2	32	30
Tex.	48	51	3	1	1	2	6	5	42	41
S. Cent.	39	39	12	13	16	16	4	4	29	28
Mont.	91	92	6	6	-	-	-	-	3	2
Idaho.....	99	99	-	1	-	-	-	-	1	-
Wyo.	81	97	13	-	-	-	-	-	6	3
Colo.	98	99	1	-	-	-	-	-	1	1
N. Mex.	96	98	-	-	-	-	-	-	4	2
Ariz.	a/	a/	a/	a/	-	-	-	-	a/	a/
Utah.....	95	96	4	2	-	-	-	-	1	2
Nev.	100	100	-	-	-	-	-	-	-	-
Wash.	72	78	19	15	-	-	-	-	9	7
Oreg.	61	74	21	17	-	-	-	-	18	9
Calif.	95	94	1	2	-	-	-	-	4	4
West.	91	92	5	4	-	-	-	-	4	4
U. S.	70	72	18	15	2	2	1	1	9	10

^{1/} For October-May winter feeding period as reported May 1.

a/ Number of reports not sufficient to establish a stable average.

Table 9.--Silage: Percentage, by kinds, fed to milk cows in herds kept by dairy reporters, winter feeding period ending in May, by States, 1963 and 1964 ^{1/}

State and division	Corn silage		Grass silage		Sorghum silage		Other silage	
	1963	1964	1963	1964	1963	1964	1963	1964
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Me., N. H., Vt.	64	70	35	30	-	-	1	-
Mass., R. I., Conn. ...	85	79	12	21	-	-	3	-
N. Y.	83	84	12	12	-	-	5	4
N. J.	85	90	10	6	3	2	2	2
Pa.	81	83	16	13	-	-	3	4
N. Atl.	81	83	15	14	-	-	4	3
Ohio.	81	83	18	14	-	2	1	1
Ind.	84	82	9	10	4	1	3	7
Ill.	85	90	7	7	5	3	3	-
Mich.	92	92	6	6	-	1	2	1
Wis.	87	88	10	8	-	-	3	4
E. N. Cent.	86	87	10	9	1	1	3	3
Minn.	94	95	3	3	1	1	2	1
Iowa.	86	86	6	9	5	1	3	4
Mo.	74	72	6	2	20	24	-	2
N. Dak.	93	99	5	-	-	1	2	-
S. Dak.	87	80	1	5	2	15	10	-
Nebr.	44	58	2	1	42	37	12	4
Kans.	26	57	2	-	72	42	-	1
W. N. Cent.	81	83	4	3	13	12	2	2
Del., Md.	83	86	10	9	5	2	2	3
Va.	96	96	3	2	1	-	-	2
W. Va.	80	84	20	11	-	-	-	5
N. C.	81	93	8	1	4	6	7	-
S. C.	59	68	1	7	32	24	8	1
Ga.	78	86	7	1	11	9	4	4
S. Atl.	84	87	8	6	5	4	3	3
Ky.	79	88	19	7	2	5	-	-
Tenn.	80	79	11	8	7	6	2	7
Ala.	31	41	8	-	61	54	-	5
Okla.	23	32	6	-	71	61	-	7
Tex.	23	22	-	9	75	55	2	14
S. Cent.	56	62	9	6	34	27	1	5
Mont.	78	78	12	22	-	-	10	-
Idaho.	90	91	6	7	-	-	4	2
Colo.	93	97	-	-	6	2	1	1
N. Mex.	59	56	-	-	41	43	-	1
Utah.	96	96	-	-	-	3	4	1
Wash.	17	33	62	55	-	1	21	11
Oreg.	37	55	45	40	-	-	18	5
Calif.	90	98	1	1	8	-	1	1
West.	65	75	21	19	5	3	9	3
U. S.	80	83	10	9	7	5	3	3

^{1/} Data are shown only for those States where the reported amount fed was sufficient to provide a stable breakdown by kinds.

Table 10.-Value per ton of hay fed to milk cows in herds kept by dairy reporters and percentage reporting on baled, chopped and loose hay, by States, February 1, 1963 and 1964 ^{1/}

State and division	Value per ton				Number of reports as percentage of total					
	Baled		All ^{2/}		Baled		Chopped		Loose	
	1963	1964	1963	1964	1963	1964	1963	1964	1963	1964
	Dol.	Dol.	Dol.	Dol.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
Me., N. H., Vt.	31.00	33.50	31.00	33.00	90	94	3	0	7	6
Mass., R. I., Conn.	38.00	40.00	38.00	40.00	96	99	0	0	4	1
N. Y.	33.50	28.00	33.00	28.00	94	94	2	3	4	3
N. J.	46.50	46.00	46.50	46.00	98	97	1	2	1	1
Pa.	40.50	39.00	40.00	39.00	98	98	0	1	2	1
N. Atl.	35.62	33.52	35.39	33.32	95	96	1	1	4	3
Ohio.	28.00	31.00	27.50	31.00	91	93	4	3	5	4
Ind.	24.00	26.50	24.00	26.50	91	93	7	4	2	3
Ill.	22.50	26.00	22.50	26.00	94	95	5	4	1	1
Mich.	20.50	24.00	20.00	24.00	88	90	9	7	3	3
Wis.	18.00	23.00	17.50	22.50	81	85	15	12	4	3
E. N. Cent.	20.77	24.85	20.51	24.65	87	89	9	8	4	3
Minn.	17.50	18.00	17.50	18.00	88	91	3	3	9	6
Iowa.	18.50	19.50	18.50	19.00	93	92	6	7	1	1
Mo.	25.00	28.50	25.00	27.50	96	94	2	2	2	4
N. Dak.	16.00	16.50	15.00	15.50	64	63	2	2	34	35
S. Dak.	15.50	16.00	14.50	15.00	60	56	4	2	36	42
Nebr.	18.00	19.50	16.00	17.50	60	56	5	6	35	38
Kans.	20.00	25.00	20.00	24.50	93	88	0	3	7	9
W. N. Cent.	18.69	19.93	18.21	19.41	83	82	4	4	13	14
Del., Md.	45.00	47.00	45.00	46.50	99	98	0	0	1	2
Va.	34.00	46.50	34.00	45.50	90	91	1	0	9	9
W. Va.	34.50	42.00	33.00	39.00	79	74	0	0	21	26
N. C.	33.50	37.00	32.00	35.50	85	85	0	2	15	13
S. C.	33.00	32.50	32.50	32.00	83	87	2	1	15	12
Ga.	32.50	30.50	32.50	30.00	97	98	3	1	0	1
Fla. ^{3/}	-	-	38.50	38.50	-	-	-	-	-	-
S. Atl.	36.32	41.58	35.81	40.62	88	88	1	1	11	11
Ky.	27.00	27.50	26.50	27.00	88	88	1	1	11	11
Tenn.	30.50	30.00	30.00	30.00	89	92	1	1	10	7
Ala.	32.00	31.00	32.00	31.00	74	86	9	8	17	6
Miss.	26.00	26.00	25.00	25.50	85	86	3	5	12	9
Ark.	24.00	27.50	24.00	27.00	89	93	1	2	10	5
La.	25.00	27.00	24.50	27.00	92	100	4	0	4	0
Okla.	23.50	31.00	23.00	30.00	93	94	3	3	4	3
Tex.	30.00	38.00	29.50	37.50	94	92	2	4	4	4
S. Cent.	27.66	30.34	27.35	29.95	88	91	2	2	10	7
Mont.	21.50	21.00	20.50	20.00	77	75	3	2	20	23
Idaho.	20.00	21.50	19.50	21.50	87	86	8	9	5	5
Wyo.	20.50	21.00	20.00	20.50	78	77	0	0	22	23
Colo.	23.50	28.00	23.00	27.50	86	80	2	4	12	16
N. Mex.	30.50	35.00	30.50	34.50	99	94	1	0	0	6
Ariz.	35.50	37.50	35.50	36.00	98	94	0	4	2	2
Utah.	22.50	23.50	22.00	23.50	90	94	5	3	5	3
Nev.	26.50	29.00	26.00	28.00	87	82	13	12	0	6
Wash.	29.00	28.00	29.00	27.50	94	90	2	5	4	5
Oreg.	26.50	26.50	27.00	26.00	82	83	9	9	9	8
Calif.	34.00	34.00	34.00	33.50	96	94	3	6	1	0
West.	28.91	29.44	28.88	29.08	88	86	5	6	7	8
U. S.	25.74	27.44	25.44	27.08	87.2	87.7	4.5	4.3	8.3	8.0

^{1/} Reporters were requested to report value only for the type of hay being fed.

^{2/} Includes reports on value of baled, chopped, or loose hay.

^{3/} Florida data not available by type.

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Table 11.-Purchased hay as percentage of all hay fed to milk cows in herds kept by dairy reporters, winter feeding season ending in May, by States, 1963 and 1964 ^{1/}

State and division	1963	1964	State and division	1963	1964
	Percent	Percent		Percent	Percent
Me., N. H., Vt.	8	7	S. C.	14	11
Mass., R. I., Conn. ...	13	21	Ga.	26	31
N. Y.	10	4	S. Atl.	12	21
N. J.	18	21	Ky.	5	7
Pa.	11	7	Tenn.	9	8
N. Atl.	11	7	Ala.	14	29
Ohio.....	13	8	Miss.	16	8
Ind.	6	12	Ark.	23	33
Ill.	7	6	La.	23	26
Mich.	6	6	Okla.	48	42
Wis.	3	6	Tex.	52	62
E. N. Cent.	6	7	S. Cent.	24	26
Minn.	3	3	Mont.	35	28
Iowa.....	4	12	Idaho.....	28	29
Mo.	43	21	Wyo.	27	32
N. Dak.	3	4	Colo.	62	67
S. Dak.	15	6	N. Mex.	83	68
Nebr.	11	8	Ariz.	82	86
Kans.	8	9	Utah.....	27	36
W. N. Cent.	10	9	Nev.	54	41
Del., Md.	9	9	Wash.	40	62
Va.	8	27	Oreg.	48	44
W. Va.	12	18	Calif.	76	86
N. C.	9	16	West.	58	64
			U. S.	17.3	18.2

^{1/} Based on tonnage fed and to be fed during October-May winter feeding season, as reported on May 1.